

## ORACLES - P-3 Orion - WFF 10/23/18 Science Report

**Aircraft:** [P-3 Orion - WFF](#) ([See full schedule](#))

**Date:** Tuesday, October 23, 2018

**Mission:** ORACLES

**Mission Location:** Sao Tome

**Mission Summary:**

Survey flight going west along 5S, preceded by high-altitude leg along 5E. Square spiral at 3W, 5S, followed by 3 cloudy boundary layer samples, all west of 5E, on the way back. Persistent aerosol layer at 6-7 kft, with overall low aerosol loading (max aod ~0.2). Low clouds extended to north of 5S, were typically precipitating. Boundary layer only very mildly polluted. In 2nd BL, a double-layered stratocumulus cloud had higher Nd in the lower layer compared to the upper layer. APR had a good day, with data gathered at all 3 frequencies. Square spiral at 3W included 3 level leg circuits as part of a wind calibration.

**Submitted by:** Paquita Zuidema on 10/26/18

**File:**

 [PRF13\\_23October2018\\_ScienceReport\\_full.pdf](#)

**Related Flight Report:**

### P-3 Orion - WFF 10/23/18

**Flight Number:** ORACLES Science Flight #13

**Payload Configuration:** ORACLES

**Nav Data Collected:** No

**Total Flight Time:** 8.1 hours

**Archive Data:** [20181023](#) (71 binary files; 24 archive (plain-text) files; 39 image files)

**Submitted by:** Mike Cropper on 10/23/18

**Flight Segments:**

<b>From:</b>	FPST	<b>To:</b>	FPST
<b>Start:</b>	10/23/18 07:47 Z	<b>Finish:</b>	10/23/18 15:50 Z
<b>Flight Time:</b>	8.1 hours		
<b>Log Number:</b>	<a href="#">19P018</a>	<b>PI:</b>	Jens Redemann
<b>Funding Source:</b>	Hal Maring - NASA - SMD - ESD Radiation Science Program		
<b>Purpose of Flight:</b>	Science		
<b>Miles Flown:</b>	1800 miles		

**Flight Hour Summary:**

	18P004	19P018
<b>Flight Hours Approved in SOFRS</b>	188.5	
<b>Flight Hours Previously Approved</b>		144
<b>Total Used</b>	44.5	110
<b>Total Remaining</b>		34

#### 19P018 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
<a href="#">10/02/18</a>	ORACLES Science Flight #3	Science	8.5	8.5	135.5	1940
<a href="#">10/03/18</a>	ORACLES Science Flight #4	Science	8.5	17	127	1970
<a href="#">10/05/18</a>	ORACLES Science Flight #5	Science	9	26	118	2000
<a href="#">10/07/18</a>	ORACLES Science Flight #6	Science	8.4	34.4	109.6	2000

<a href="#">10/10/18</a>	ORACLES Science Flight #7	Science	8.3	42.7	101.3	1970
<a href="#">10/12/18</a>	ORACLES Science Flight #8	Science	5.3	48	96	800
<a href="#">10/15/18</a>	ORACLES Science Flight #9	Science	7.8	55.8	88.2	1700
<a href="#">10/17/18</a>	ORACLES Science Flight #10	Science	8.5	64.3	79.7	2000
<a href="#">10/19/18</a>	ORACLES Science Flight #11	Science	8	72.3	71.7	1800
<a href="#">10/21/18</a>	ORACLES Science Flight #12	Science	8.2	80.5	63.5	1800
<a href="#">10/23/18</a>	ORACLES Science Flight #13	Science	8.1	88.6	55.4	1800
<a href="#">10/25/18</a>	ORACLES Transit #1	Transit	7.8	96.4	47.6	2009
<a href="#">10/26/18</a>	ORACLES Transit #2	Transit	7	103.4	40.6	2100
<a href="#">10/27/18</a>	ORACLES Transit #3	Transit	5.8	109.2	34.8	1692
<a href="#">10/27/18</a>	ORACLES Transit #4	Transit	0.8	110	34	72

**Source URL:** [https://airbornescience.nasa.gov/science\\_reports/ORACLES\\_-\\_P-3\\_Orion\\_-\\_WFF\\_10\\_23\\_18\\_Science\\_Report#comment-0](https://airbornescience.nasa.gov/science_reports/ORACLES_-_P-3_Orion_-_WFF_10_23_18_Science_Report#comment-0)

Page Last Updated: April 22, 2017

Page Editor: Brad Bulger

NASA Official: Bruce A. Tagg

*Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.*

18P004 Flight Reports						
Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
<a href="#">09/17/18</a>	ORACLES ATF	Check	1.3	1.3	187.2	0
<a href="#">09/19/18</a>	ORACLES PTF	Check	3.7	5	183.5	0
<a href="#">09/21/18</a>	ORACLES Transit #1	Transit	6.3	11.3	177.2	1716
<a href="#">09/22/18</a>	ORACLES Transit #2	Transit	8.2	19.5	169	2131
<a href="#">09/24/18</a>	ORACLES Transit #3/Science Flight	Transit	9.3	28.8	159.7	2500
<a href="#">09/27/18</a>	ORACLES Science Flight #1	Science	8	36.8	151.7	1875
<a href="#">09/30/18</a>	ORACLES Science Flight #2	Science	7.7	44.5	144	2400